

EXECUTIVE SUMMARY

2003-04 Hunting Season: Fall 2003 was characterized by warm temperatures, dry conditions and poor habitat conditions early, followed by periods of colder temperatures, rain and snow events, and generally improved habitat conditions by late season. Despite early season concerns about availability of water for pumping, most wetland areas had adequate water available for managed flooding. November was the 21st warmest and 24th wettest in the last 109 years with two periods of cold weather occurring between 6-8 November and during the last week of November. Precipitation events improved habitat conditions in late December. In the northern two-thirds of the state, most shallow-water was ice-covered from 10 December through 18 December. December was the 28th warmest and 18th wettest in the last 109 years. Three significant storm systems moved through the Midwest in January. Timely migrations in early season combined with mild conditions late resulted in hunting opportunity throughout the entire 60-day season. Hunting on managed public and private areas was good throughout the season and was good throughout the state in late season when habitat conditions improved.

2003-04 Duck Harvest: Numbers of hunters participating in the 2003-04 season (37,079 vs. 34,822 in 2002-03), trips per hunter (8.4 vs. 7.2 in 2002-03), and average daily success (1.52 vs. 1.67 in 2002-2003) combined to result in a 2003-04 duck harvest of 471,995 up from the previous record of 445,923 in 2001-02 and the harvest of 392,621 in 2002-03. On Department areas, hunters broke the previous record harvest of 65,700 ducks (38,134 trips) set in 2001-02 with a harvest of 77,438 ducks (39,855 trips). Hunters averaged 1.94 ducks per trip, which was slightly higher than last year (1.76), but lower than the high of 2.09 set in 2000. The large harvest was the product of few hunting days limited by weather, and opportunity to hunt much of the 60-day season.

2003-04 Canada Goose Harvest: Canada goose harvest (56,384) was 2nd only to 2000 (76,300) in the last 10 years (Table 3). Approximately 14% of the harvest occurred in the early season (September-early October), 11% from the beginning of duck season until the end of November, and 75% after November 30.

2003-04 Light Goose Harvest: The light goose harvest in Missouri increased from an average of just over 11,000 during the early 1990s (regular hunting season) to a high of 203,200 total light geese (regular season plus Conservation Order) during 2002-2003. During the 2003-04 regular season and the 2004 Conservation Order, hunters harvested 201,300 light geese, second only to 2002.

2004 Breeding Duck Habitat: Reports of above average snowfall during winter 2003-2004 in portions of southern Canada raised expectations of improved wetland habitat conditions. However, dry soil conditions combined with warm, windy weather during April resulted in a poor frost seal and little runoff. As a result, the number of May ponds in Prairie Canada and the northcentral U.S. declined (-24%) from 5.2 million during 2003 to 3.9 million during spring 2004 and was 19% below the long term average. Compared with 2003, there were fewer ponds in Canada (-29%) and the U.S. (-16%) in spite of heavy snowfall in portions of the southern prairies on May 12-13. Precipitation since May improved wetland conditions in portions of central and eastern Prairie Canada, but much of the western prairies remained dry. The July brood production survey was not conducted this year due to USFWS budget constraints, but limited flights over certain areas confirmed reports of improved wetland conditions during June and July. Summer improvements in wetland conditions came too late for initial nesters but should help re-nesters and brood survival.

2004 Breeding Duck Populations: Total duck numbers in the traditional survey area decreased 11% from 36.2 million in 2003 to 32.2 million in 2004, and were 3% below the long-term average. Blue-

winged teal numbers (4.1 million) declined 26% from last year and were 10% below the long-term average. Northern shovelers and American Wigeon were 22% below 2003. Gadwall (+56%), green-winged teal (+33%), and shovelers (+32%) were above their long-term averages. Scaup (-27%), northern pintails (-48%), and American wigeon (-25%) were below their long-term averages. Canvasback were slightly above their long-term average (+10%).

Mallard Fall Flight: The 2004 breeding population estimate for mid-continent mallards of 8.36 million (7.4 million in the traditional survey area plus .93 million in Michigan, Minnesota, and Wisconsin), is similar to the 8.8 million estimate of 2003. The fall flight index for mallards is projected to be 9.4 million, compared to 10.3 million in 2003.

Canada Goose Status: Canada geese that migrate to Missouri include birds from 4 different populations. Tallgrass Prairie Population Canada geese migrate from near the Arctic Circle on Baffin Island, the Eastern Prairie and Mississippi Valley populations originate from west Hudson Bay in northern Manitoba and Ontario, and giant Canada geese nest in more temperate areas including Missouri. Geese from different populations survive, reproduce, and are harvested at different rates. Each population experiences different breeding conditions each year. As a result, population-specific information is needed to assess annual status and to develop appropriate regulations recommendations.

Eastern Prairie Population: The Eastern Prairie Population (EPP) of Canada geese is the predominant migrant population represented in the Missouri goose harvest. A combination of geese observed as singles and in pairs is the basis for decisions about EPP harvest management. The 2004 estimate (145,500 \pm 19,800) is near the 2000 Plan objective of 145,000. However, much of this estimate was comprised of pairs that did not exhibit nesting behavior. Breeding phenology was the latest recorded (1976-2004) and a production “bust” was indicated according to criteria in the 2000 EPP Plan. Based on estimates of nest density, clutch size, and nest success, gosling production at Nestor One was approximately 0.43 per 100 ha of wetland—the lowest productivity recorded from 1976-2004 and well below the average of 33.48 goslings per 100 ha of wetlands observed during that period. We project a fall flight lower than 2003 with few young geese.

Mississippi Valley Population: Spring 2004 was the latest on record for the MVP population. There were 23% fewer nests during 2004, and the average clutch size was the smallest recorded. Reduced nesting effort, low clutch sizes, and cold wet weather during incubation and early brood rearing will contribute to poor production in 2004. A much lower fall flight of MVP Canada geese is expected.

Tallgrass Prairie Population: Tallgrass Prairie Population Canada geese are much smaller than other Canada geese found in Missouri. They nest primarily on Baffin Island and winter in Louisiana, Oklahoma, Texas and northeastern Mexico. Missouri is on the eastern edge of their migration route. Limited information suggests that spring breakup during 2004 was near average but later than 2003. Based upon limited information, production is expected to be somewhat lower than 2003.

Giant Canada Geese: In Missouri, the 2004 survey conducted April 5-9 resulted in a giant Canada goose population estimate of 65,172 (\pm 29,976), similar to the 2003 estimate of 62,806. The population estimate for Missouri increased from 30,300 during 1993 to a high of 77,128 during 2000 but now appears to be leveling off. Canada goose control activities and harvest regulations focusing on giant Canada geese may be beginning to impact the rate of population growth of giant Canada geese in Missouri.

White-Fronted Geese: The 2003 survey yielded 528,200 white-fronted geese in Alberta and Saskatchewan, 17% fewer than the previous year. These results provide a new 3 year (2001-2003) average of 625,900 geese, 22% fewer than the previous mean of 805,700 birds. This is the 4th consecutive year that the fall survey has suggested a decrease in the fall flight. If the fall 2004 survey

continues this trend, harvest regulation adjustments will likely be considered for the 2005 regulations cycle.

Light Geese: Estimates of Mid-continent light geese (Central and Mississippi Flyways) increased to a peak of nearly 3 million during 1998, and since then have declined slightly. The 2004 Midwinter Waterfowl Survey resulted in an estimate of 2.15 million mid-continent light geese, 12% fewer than last year. In Missouri, a total of 467,217 light geese were counted during the 2004 Midwinter survey, 18% fewer than during 2003. A decline in mid-continent light geese since 1998, combined with increasing recovery rates and decreasing survival rates in some areas, hopefully is a signal that population control efforts are beginning to have an impact on numbers of mid-continent light geese.

2004-05 Waterfowl Seasons: Broad frameworks of waterfowl hunting dates, season lengths, and bag limits are developed by the U.S. Fish and Wildlife Service in cooperation with states from each of the 4 flyways – Atlantic, Mississippi (including Missouri), Central, and Pacific. The result of this regulations process is a general waterfowl season framework within which states select specific season dates. States can recommend a season more restrictive but no more liberal than the federal framework. All states within each flyway share a common framework of season length and bag limits; thus, Missouri's basic season structure is the same as the states from Minnesota in the North to Louisiana in the South.

Adaptive Harvest Management: Duck seasons, based on regulatory alternatives developed under the Adaptive Harvest Management Program (AHM), provide for a 60-day season with a 6-duck daily bag limit in 2004-05 for the 8th consecutive year. Each year's regulation recommendation under AHM is based on the status of the mallard breeding population and the condition of prairie ponds in Canada. A 4-tiered package of open seasons, developed in 1997, included liberal (60 days), moderate (45 days), restrictive (30 days), and very restrictive (20 days) options. In 2003, the very restrictive (20 days) alternative was eliminated from the AHM regulations options.

Canvasbacks and Pintails: The AHM regulations packages are based upon the status of mallards. When other species, such as pintails or canvasbacks fall below objective levels, special provisions are considered to ensure additional protection. The objective for canvasbacks, to maintain a breeding population of at least 500,000, would not likely be achieved if canvasback hunting was allowed for a full 60-day season. Likewise, pintail numbers have improved from a record low of 1.8 million during 2002 to 2.2 million in 2004, but FWS predictions are that gains this year would be lost if a one-bird bag for pintails was allowed for the full season. Therefore, the allowable season length for pintails and canvasbacks will be only 30 days. We recommend that these days be concurrent with the first 30 days of the duck season, when most hunters participate (including novice hunters), to minimize the number of "mistakes" that could occur.

Goose Frameworks: Frameworks for snow, Ross's, and white-fronted goose seasons have remained unchanged since 2000. A Canada goose season of up to 77 days in 3 segments is designed to provide; 1) greater hunting opportunity and hunting pressure for giant Canada geese produced in Missouri (September and early October); 2) opportunity for concurrent duck and goose hunting; and 3) late season opportunity for migrant Canadas from the Eastern Prairie Population (no more than 30 days after 30 November are allowed in the North and Middle zones), and giant Canada geese from other states. A daily bag limit of 1 during late season is designed to reduce the harvest of Eastern Prairie Population Canada geese in Missouri by 25%, and is in line with proposed reductions in other EPP states.

Spring 2005 Conservation Order: A light goose Conservation Order will be in effect for the 7th consecutive year during spring 2005. The Conservation Order was implemented to reduce numbers of snow and Ross's geese that have rapidly increased in number and are causing damage to portions of the fragile arctic tundra. The Conservation Order will be in effect through April 30, 2005. Lesser snow

(white and blue color phase) and Ross's geese may be taken until ½ hour after sunset, with the use of electronic calls, and with unplugged shotguns during the Conservation Order.

Youth Waterfowl Hunting Days: The U.S. Fish and Wildlife Service implemented a youth waterfowl hunting day (in addition to regular hunting season days) for youth under 16 years of age during 1996-99. A 2-day rather than a single-day season was provided beginning in fall 2000 and again will be offered during fall 2004. The youth hunting days (different days are possible in each zone) incorporate a weekend or holidays up to 14 days before or after the regular season. The bag limit is the same as during the regular season. Youth must be accompanied by an adult who is not allowed to hunt ducks but who can participate in other open seasons (e.g., geese). No permits are required for the youth hunters. Nonhunting adults, however, must be licensed unless the youth hunter possesses a valid hunter education certificate card. Only ducks were allowed during 1996-1997; however, geese also could be taken by youth hunters beginning in 1998-2000; the same holds true for 2004.

Motion-wing Decoys (MWD): Efforts to evaluate the use and attitudes regarding MWD were initiated in 2000 and continued through 2004. Field observations, reports from hunters on Department areas, and responses to post-season surveys have provided insights into effectiveness and preferences for future use. MWD use in Missouri appears to have stabilized with 57% of hunters reporting MWD use in 2001 and 2002. On Department wetland areas in 2004, MWD users accounted for 69% of the trips and 74% of the ducks harvested and averaged 2.09 ducks per trip compared to 1.6 ducks per trip for those who did not hunt with one.

Recommending Missouri Seasons: Information for recommending specific waterfowl seasons for Missouri includes migration timing, weather, habitat conditions, and hunters' preferences. Unfortunately, it is impossible to predict in August what these variables will look like in November or December. In the last two years season dates have been shifted later to accommodate hunter preferences, based upon recent year's survey results. Many hunters, however, continue to indicate preferences for even later seasons. We solicited input from 19,700 hunters through 2 different surveys in 2004.

Canada Goose Preferences: While hunter input plays an important role in determining duck hunting season dates, it plays a lesser role in regards to Canada geese. Population status is the primary consideration. Preferences for Canada goose hunting have changed dramatically since the 1980s. Goose hunters are less concerned about having a concurrent duck and goose opener, but 82% still feel it is important to have some days when duck and goose season are both open. A shift in migration patterns of Eastern Prairie Population Canada geese has resulted in later season date preferences. However, 56% of goose hunters indicated that early season hunting opportunity is important

Outlook for the 2004-05 Season: The outlook for 2004 is less optimistic than most recent years. News of dryer wetland conditions, lower breeding duck numbers and a reduced mallard fall flight, combined with prospects of a late spring and poor production in primary Canada goose breeding areas will undoubtedly lower hunter expectations during fall 2004. However, weather, habitat, and migration timing will have a greater impact on the season in Missouri than the size of the fall flight.